<u>REMARKS</u>

Applicants request reconsideration and allowance of the subject application in view of the following remarks.

Claims 1-4, 6, 8, 10, 12, 14, 18, 19, 21, 23, 25, 26, 28, 30, 32, 34, 35, 37, and 39 are pending in this application, with Claims 1, 6, 21, 25, 26, 30, 34, and 35 being independent.

The specification has been objected to as failing to provide proper antecedent basis for subject matter claimed in Claim 4, namely, the feature of "notifiying said speech recognition apparatus of the corresponding model." Applicants submit that this feature is supported at least by the paragraph on page 24, at lines 9-20, of the specification. Reconsideration and withdrawal of the objection to the specification are respectfully requested.

Claim 23 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants submit that the words "data conversion condition" in "data conversion condition quantization table" were properly deleted from Claim 23 in the previous amendment, filed December 19, 2003. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1, 2, 4, 6, 8, 21, 25, 26, 30, 34, 35, and 39 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,749,068 ("Suzuki"). Claims 3, 10, 23, 28, 32, and 37 have been rejected under 35 U.S.C. § 103(a) as being obvious over Suzuki in view of U.S. Patent No. 5,293,588 ("Satoh"). Claim 12 has been rejected under 35 U.S.C. § 103(a) as being obvious over Suzuki in view of Satoh, and further in view of U.S. Patent No. 4,907,274 ("Nomura"). Claims 14 and 18 have been rejected under 35 U.S.C. § 103(a) as being obvious over Suzuki in view of U.S. Patent No. 4,922,538 ("Tchorzewski"). Claim 19 has been rejected

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under 35 U.S.C. § 103(a) as being obvious over Suzuki in view of Satoh, and further in view of Tchorzewski. These rejections are respectfully traversed.

Independent Claim 1 of the invention recites a speech input terminal in a speech communication system including the speech input terminal for transmitting inputted speech data to a speech recognition apparatus through a network, and the speech recognition apparatus executing speech recognition processing for the speech data transmitted from the speech input terminal. The speech input terminal includes speech input means, means for creating a model based on information captured by the speech input means, the model being for environment adaptation for speech recognition, and communication means for transmitting the model to the speech recognition apparatus.

Independent Claim 6 recites a speech recognition apparatus in a speech communication system (corresponding to a speech communication system as described above for Claim 1). The speech recognition apparatus includes speech recognition means for execution speech recognition processing for the speech data transmitted form the speech input terminal through the network, and means for receiving a model for environment adaptation for speech recognition from the speech input terminal, the model being created by the speech input terminal based on information captured by the speech input terminal, wherein the speech recognition means executes speech recognition processing on the basis of the model.

Independent Claim 21 recites a speech communication system (corresponding to a speech communication system as described above for Claim 1). In the system, the speech input terminal includes speech input means, means for creating a model based on information captured by the speech input means, the model being for environment adaptation for speech

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recognition, and communication means for transmitting the model to the speech recognition apparatus, which receives the model. The speech recognition apparatus includes means for executing speech recognition processing on the basis of the model.

Independent Claims 25, 26, and 30 are method claims reciting features that generally correspond to those recited in Claims 1, 6, and 21, respectively.

Independent Claims 35 and 35 are storage medium claims reciting features that generally correspond to those recited in Claims 1 and 6, respectively.

According to the invention, speech data inputted at a speech input terminal, and a model for environment adaptation for speech recognition which is *created at* and based on information captured at the terminal, can be transmitted *through a network* to be received at a speech recognition apparatus. The speech recognition apparatus can execute speech recognition processing on the speech data that has been transmitted through the network, based on the model created at the terminal and that has been transmitted through the network.

Thus, the speech recognition apparatus can adapt an original speech recognition model to an environment at the side of the speech input terminal using the model from the terminal. (See, e.g., the description from page 16, line 22 to page 18, line 9, and from page 18, line 16 to page 19, line 18, in the specification.)

Suzuki discloses a noise adaptation for a change of noise in speech. Suzuki teaches estimating of types of noise and Signal Noise (SN)-ratio in each frame of inputted speech including noise by using noise models and speech models for estimating noise, which noise models and speech models are prepared in advance. A noise component is canceled from the inputted speech based on the estimated type of noise and SN-ratio, the inputted speech with noise

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component canceled is matched with models for speech recognition, and the result of speech recognition is output. Additionally, Suzuki teaches that it is acceptable to input speech data from a network.

Applicants submit that Suzuki fails to teach or suggest at least that a model for environment adaptation can be created at an input terminal and transmitted through a network to a speech recognition apparatus in the manner according to the claimed invention.

In Suzuki, no so-called client of a network, corresponding to the input terminal in the speech communication system of the invention, is shown in the figures; and there is merely a disclosure that it is acceptable to input *speech data* from a network. There is no teaching or suggestion that a *model* is *created* at some client and *transmitted through a network* to the speech recognition apparatus 100, which is interpreted to be a server of a network when speech data is inputted thereto from a client through a network.

Furthermore, the speech recognition apparatus 100 has a noise model memory 14 in which noise model 121 is stored. That is, the noise model is already present in the apparatus 100, and is not transmitted through a network to the apparatus from some client. There is no teaching or suggestion that an unshown *speech input terminal can create a model* for environment adaptation and *transmit it through a network* to a speech recognition apparatus.

In Suzuki, "transmission" of the noise model 121 is performed in the superimposed-noise estimating unit 15 as shown in Fig. 3. The unit 15 is contained in the apparatus 100. Again, there is no teaching or suggestion of transmitting the noise model *through a network* as in the claimed invention.

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Accordingly, applicants submit that the independent claims patentably distinguish the invention over Suzuki.

Applicants also submit that Satoh, Nomura, and Tchorzewski, whether taken alone or in any of the proposed combinations, fail to teach or suggest that a speech input terminal can *create a model* for environment adaptation for speech recognition and transmit the model *through a network* to a speech recognition apparatus.

Accordingly, reconsideration and withdrawal of the §§ 102 and 103 rejections are respectfully requested.

Applicants submit that the independent claims patentably define the invention over the cited art. Further, the dependent claims should be allowable for the same reasons that the base claims from which they depend are allowable, and further due to the additional features that they recite. Individual consideration of each dependent claim is respectfully requested.

Applicants submit that the application is in condition for allowance. Favorable consideration of the claims and passage to issue of the application at the Examiner's earliest convenience are requested.

Applicants' undersigned attorney may be reached in Washington, D.C. by

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listed address.

Respectfully submitted,

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